

HALLBERG-RASSY 46 REVIEW – JOHN NEAL

Christoph Rassy started building production sailboats on Sweden's West Coast in 1966 with the Rasmus 35, a center-cockpit, aft cabin cruising boat designed by Olle Enderlein. Dozens of these boats are still out cruising the world, and the designs that followed have consistently been comfortable, attractive and reasonably fast; very reliable cruising boats without any concession to racing design or passing tends. Large tankage and engines and fixed windshields with optional hardtops are common features and consistently high construction quality has resulted in steadily increasing value of these boats over the years.

In 1988 Germán Frers was hired to design a new series of yachts. The Frers designs brought improved performance with longer waterlines and other features such as external lead ballast, semi-balanced rudders and a sloop rigs. Having sailed 114,000 miles on Rassy-Enderlein designed HR 31 and 42, I was eager to test the sailing performance the new Frers-designed 39, 42, 46 and 53, and the difference in both light and heavy air performance was surprising. The larger water plane area aft means these boats can sail to windward in strong winds and seas with very little pitching motion.

Before selecting a Hallberg-Rassy 46 to replace the older-style Rassy-Enderlein designed HR 42 which we sailed 70,000 miles over seven years of sail-training, Amanda and I traveled around the world inspecting boat yards and speaking with designers.

On a visit to the Hallberg-Rassy yard in Ellös, Sweden we met Christoph Rassy the owner of Hallberg-Rassy. He is an avid sailor commissioning a personal boat every few years to cross the Atlantic, and complete a circumnavigation with the World ARC, trading off with his employees for time aboard. Many of the 260 employees have been with the yard for over 30 years, and boatbuilding is a family tradition carried out on the island of Orust for over 10,000 years, according to archaeologists. The entire yard closes for four weeks each summer allowing employees to go cruising on their own boats.

We gave very little consideration to a custom design, having watched dozens of our ex-students go through the time and cost overruns and seemingly unending teething problems of custom boats. Purchasing a used boat and going through a major refit was something I had done three times previously. After careful evaluation, we took the major step (for us) of ordering a new HR 46, exactly the way we wanted it.

I was particularly pleased to be purchasing hull #92 of the design, and to know that the yard had completed 8,000 boats to date. Between the time we ordered the boat and it was built, the yard incorporated several standard upgrades which they did not charge extra for.

Construction

There are many construction details that I've found to be excellent, and in some cases unique to Hallberg-Rassy. This list highlights some of the most noteworthy features:

Optional rigid dodgers with opening center windows on the 42 to 62. Once you've made a rough ocean passage with a rigid dodger, you'll never want to go back to a canvas dodger that can be easily carried away. Permanent sun protection is also a consideration in these days of ozone depletion and high rates of skin cancer.

An excellent anchoring system with a watertight bulkhead and deck anchor locker for 250' of 3/8" chain and three fenders which drains overboard, not into the bilge. Two bow rollers are standard, and the boat handles the weight of a 75 lb. CQR and 44 lb. Delta permanently stored on the bow. The powerful 1300 watt, 24 volt Lofrans vertical windlass has worked flawlessly, even in 90' depths.

Oversize thru-bolted mooring cleats including midship spring-line cleats mounted on top of the solid teak toerail in such a way that chafe is minimized.

Hull-to-deck joint that does not rely on bolts, screws, rivets or adhesive for strength or watertightness. The joint is heavily glassed on the inside the entire way around the boat and solid stainless-steel rods for mounting stanchions are recessed into the bulwark thus eliminating potential leaks so common when stanchion bases are thru-bolted.

A strong hull utilizing isophtalic resin and Divinycell closed-cell PVC insulation above the waterline. I believe this an excellent construction technique for a cruising boat, providing a hull with excellent torsional stability and no chance of water absorption. I really like the fact that the yard takes the time to grind the inside of the hull and bilge smooth, and paint it with a gray topcoat. This means no sliced or scraped fingers from errant fiberglass strands when installing equipment or cleaning. All interior lockers are lined with satin-varnished mahogany battens. This eliminates moisture and condensation problems, even when we are sailing in Antarctic or Arctic waters.

Very careful osmotic blister protection. I have spent much of the past 22 years in tropical waters aboard my HR boats without blister problems. This may be due in part to the fact that the hulls are built under strictly controlled

temperature and humidity conditions.

A deck that will not leak! The deck also utilizes Divinycell coring which does not have the water absorption problems I've seen on many boats with balsa-cored decks.

A substantial structural grid fiberglassed to the hull made of hand-laid fiberglass that ties the bulkheads, mast support and engine beds together and divides up the large storage areas below the cabin sole.

A Seldén deck-stepped mast with solid wood support that transmits loading to the interior grid system. I have come to prefer this deck-stepped mast design as it eliminates leaks where the mast comes through the deck, corrosion at the mast base and deck collar, and the inevitable water in the bilge from rain entering around masthead sheaves. After 156,000 miles on my HR 31, 42 & 46 I have never experienced any deflection or problem with the deck-stepped masts.

A simple and efficient sloop rig minimizing foredeck clutter. Utilizing a reefable 130% headsail with foam luff we are able to sail to windward in up to 40 knots. Over 40 knots upwind we easily rig the removable inner stay on which we set a bullet-proof hank-on storm staysail. Running backstays provide additional mast stability. In winds over 50-55 knots, we drop the triple-reefed main and hoist a storm trysail. We have only had to hoist the trysail twice while in the Roaring Forties, during our 42,000 miles to date on our 46.

Substantial stainless tanks with 275 gallons fuel (including an optional 100-gallon tank) and 245 gallons water are mounted above the keel, and below the cabin sole, creating roomy storage space below the main cabin settees. The tanks are installed after the deck is constructed and are easily removed without having to destroy interior joinery work.

A powerful yet economical 95 hp engine with excellent access from all sides and plenty of room for additional systems.

Massive amounts of storage area are available below the cabin sole and on the 46 it runs to nearly 3' deep at the main bulkhead. We have five large Rubbermaid bins screwed to the grid system and filled with spares and food. A boat with a flatter underbody would surf better downwind but have reduced storage space and prove less comfortable going to windward in heavy weather.

A semi-balanced rudder suspended on three sets of roller bearings and utilizing Whitlock torque-tube and bevel gear Mamba steering system gives fingertip control, even in heavy seas. I was initially concerned that the design didn't have a full-length skeg, but after 42,000 miles, the "power-steering" effect of being semi-balanced is addictive, requiring far less rudder input and effort. The rudder post is solid stainless steel, tapered at the bottom and the substantial welded flanges are also tapered stainless steel.

A substantially deep bilge and sump with external lead ballast with stainless keel bolts.

A convenient swim step built into the reverse transom. We find this type of transom unbeatable for active cruising. Not only does this make getting out of the water after snorkeling and swimming easier, it also makes practicing the Lifesling Overboard Retrieval system easier. Mooring stern-to floating docks or boarding from a dinghy with this type of transom is a breeze!

Layout

Although few changes are allowed to the standard layouts, the yard has several optional layouts for each cabin. We cut and pasted layouts from the brochure until we had the combination we thought would work best for eight people on ocean passages in all conditions. We opted for a four-cabin layout with upper and lower bunks in the cabin directly forward of the main bulkhead, a traditional v-berth forward, standard L-shaped settees in the main cabin instead of easy chairs. In the aft cabin we chose a double to starboard and single berth to port in the aft cabin, instead of a centerline double.

Options

We chose far fewer options than most 46 owners: no generator, air conditioning furling main, electric winches, hydraulic furling systems or bow thruster.

In retrospect, the bow thruster is a good idea on a boat of this size and displacement, and we will probably install one when we sail back to New Zealand in 2002.

Instead of the optional generator, we installed a total of four 8-D gel batteries for the 24-volt system and three Group 27 (one starting, two house) gel batteries for the 12 volt systems.

A 3500-watt Trace inverter provides 110-volt power.

We replaced the standard alternator with a Balmar 135-amp, 24-volt unit and retained the stock 50-amp, 12 volt alternator. We chose not to utilize solar panels and have found that one hour per day of engine running in the tropics is sufficient for battery charging.

Instead of air conditioning, we had the yard install ten Hella Turbo fans, one for each bunk, plus additional fans in the heads, galley and nav station.

I had originally planned to install an expensive holding-plate refrigeration-freezer system that would have run \$10,000 installed. A friend who had just completed a three-year South Pacific cruise aboard his HR 42 with the factory installed Frigoboat evaporator system convinced me to try it, saying that with over 3,000 of the units installed, the yard really knew what they were doing. A bonus was that the cost was a fraction of the holding plate system. We have been delighted with how well this very simple system has worked, holding the freezer at 10 degrees F. in 82-degree water with a maximum of one hour of engine running per day.

I had the factory install Autohelm ST-50 series instrumentation that has worked well. I chose to install the Max prop and insulated backstay upon commissioning in Seattle, thinking it would be less expensive. In retrospect, I now really believe that the factory only charges cost their cost for options and recommend that anyone purchasing an HR have the factory install as much of the optional gear as possible.

In only 28 days of work from the time our Hallberg-Rassy 46 was unloaded from the freighter in Seattle, Amanda, a friend and I commissioned the boat and were ready for our 10,000-mile shakedown series of sail-training voyages to New Zealand. We installed the mast, hardtop, SSB, VHF, weatherfax, INMARSAT-C, radar, watermaker, additional batteries, inverter and high-output alternator. This was the first huge difference in time spent outfitting between purchasing a used boat and a new boat specifically designed and built for ocean voyaging. The second major difference has been how little time we have spent making repairs over the past 42,000 miles and four years of hard sailing.

In six months this summer (2001) we sailed 11,000 miles in eight legs from Victoria, Canada, through the Panama Canal, to the Caribbean, across to the Azores, Ireland, up the west coast of Ireland and Scotland, across the North Sea to Norway. We ended our cruise on Sweden's West Coast at the Hallberg-Rassy yard. Many people asked if the boat would be ready for a major refit after so many miles, but our list was short: replace a couple of hatch seals, re-bed the windlass and service the forced air furnace. We had hoped to have a bow thruster installed, but with a two-year backlog of orders on most models, this wasn't possible.

The sailing performance has been very good, we are able to comfortably sail 160-180 miles per day, even in very modest winds. Our best 24-hour run to date is 200 miles, close-reaching in 35-45 knot winds from Rangiroa in the Tuamotus to Papeete, Tahiti. More impressively, we have found that this design can sail to windward into 30-40 knot tradewinds at over seven knots without pounding. We have twice experienced winds over 65 knots and seas over 30' in the edge of the Roaring Forties between Auckland and the Austral Islands and have found that the HR 46 will heave-to in these conditions, although we prefer to run or close-reach.

In retrospect, I know we made the right decision. The HR 46 has met our requirements and has proven a comfortable home. It has been a delight to spend our time teaching, hiking, snorkeling, and meeting people ashore, instead of making repairs. Having a boat that is fun and fast to sail has meant that we have enjoyed going for daysails, tacking through narrow passes and into anchorages instead of motoring.